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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,900	09/29/2003	Robert F. Bartfai	TUC920030109US1	4827

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LAW OFFICE OF DAN SHIFRIN, PC - IBM  
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ARVADA, CO 80004

EXAMINER
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MYINT, DENNIS Y

ART UNIT	PAPER NUMBER
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2162

NOTIFICATION DATE	DELIVERY MODE
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02/05/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DAN-SHIFRIN@COMCAST.NET

<b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b>	Application No. 10/674,900	Applicant(s) BARTFAI ET AL.	
	Examiner Dennis Myint	Art Unit 2162	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 02 July 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
- Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) ~~fourteen~~ (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
- (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ They raise the issue of new matter (see NOTE below);
- (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.

6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: 1-29.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.

12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_

13. ☐ Other: \_\_\_\_\_.

Continuation of 11. does NOT place the application in condition for allowance because:

Regarding the office action summary of the prior office action, Examination acknowledges that there was a typographical error with respect to the objection of the specification on the Office Action Summary (PTO-326) because said objection had been corrected by the Applicant in the communication filed on July 7, 2006 and Examiner had withdrawn said objection in response.

Referring to the continued rejection of the claims under 35 U.S.C. 103, Applicant argued that "with respect to the continued rejection of the claims under § 103, the Applicant continues to emphasize that the FlashCopy function to which the present invention pertains is different from the concurrent copy discussed in some of the cited references" (Applicant's argument, page 2, third paragraph).

In response, it is pointed out that, it is pointed out that concurrent copy of Asselin functions the same way as FlashCopy and inhibit write operations to source volumes (Asselin, Page 3 Lines 9-10, i.e., it serializes access to the data sets involved, which are unavailable to users during that time and Page 3 Lines 13-15, i.e., The system serializes access to the data being dumped or copied just long enough for the concurrent copy session to be initialized).

Applicant also argued that "There is no suggestion in any cited reference to combine their respective teachings and, even if the teachings were combined, no such combination teaches the claimed invention" (Applicant's argument, page 3 second paragraph).

In response it is pointed out that As per claim 1, Milillo is directed to "a method for protecting consistency groups during a data storage backup operation" (Milillo, Figure 2) and teaches the limitations: "transferring data updates from a host device" (Milillo, Figure 2: Host 42) "to primary PPRC volumes on a primary PPRC unit" (Milillo, Figure 2: Source Volume 52) (Also note Milillo, Column 7 Line 1-25); "upon the primary PPRC volumes forming a consistency group, transferring the primary PPRC volumes to FlashCopy source volumes on a secondary PPRC unit" (Milillo et al. Figure 2, "Primary Target Volume" 54); and "committing a FlashCopy operation of the consistency group from the FlashCopy source volumes to corresponding FlashCopy target volumes" (Milillo, Figure 2: Secondary Volume 56 and Milillo, Column 7 Line 44-63).

Note that Milillo recites that it should be noted that Fig. 2 depicts a single PPRC volume pair (primary target volume 54 and secondary volume 56) and a single source volume 52 for the sake of simplicity only. As those of ordinary skill will appreciate, additional volume pairs and source volumes may also be included. Thus, in the method and system of Milillo, additional volumes can be placed on both primary and secondary systems and Primary Target Volumes of Milillo et al. (Milillo et al. Figure 2, Primary Target Volume 54) could be PPRC Primary Site Storage Volumes of the claimed invention (Specification of the claimed invention, Figure 1, PPRC Primary Site Storage Volumes 116).


Milillo does not explicitly teach the limitations: "attempting to prepare each FlashCopy source volume for a FlashCopy operation, including imposing a write-inhibit indicator on a FlashCopy source volume", "if the preparation of all FlashCopy source volumes is successful" and "reverting the FlashCopy operation if the preparation of any FlashCopy source volume is unsuccessful, whereby the prior consistency group is maintained in the FlashCopy target volumes".


On the other hand, Asselin teaches the limitation: "attempting to prepare each FlashCopy source volume for a FlashCopy operation, including imposing a write-inhibit indicator on a FlashCopy source volume" (Asselin, Page 2-3). Asselin teaches a method of concurrent copy where in source is not available for access for a short period of time while concurrent copy process initialized (Asselin et al. Page 2, i.e., when you use concurrent copy, application processing is interrupted only for a short period while the system initializes the concurrent copy environment and Page 3, i.e., The system serializes access to the data being dumped or copied long enough for the concurrent copy session to be initialized). It is inherent in the method of concurrent copy as taught by Asselin that write-inhibit indicators are imposed during the initialization period of the concurrent copy process.

In addition, Taylor teaches the limitation: "if the preparation of all FlashCopy source volumes is successful" (Taylor, Paragraph 0040, i.e., if the online backup preparation was successful") and "reverting the FlashCopy operation if the preparation of any FlashCopy source volume is unsuccessful, whereby the prior consistency group is maintained in the FlashCopy target volumes" (Taylor, Paragraph 0040, i.e., However if the online backup preparation was not successful, then the system attempts to return to database accessibility by releasing the database from online backup operation).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the method of Milillo et al. for data copying using consistency groups with the methods of Asselin and Taylor so that, in the combined method, write operations on source consistency group volumes would be made unavailable by way of using write-inhibitors (i.e. preparing the consistency groups for FlashCopy) and mirroring/copying/updates between the consistency group volumes (FlashCopy operations) would be committed if preparations of consistency groups are successful and reverted if said preparation is not successful. One would have been motivated to do so in order to "reduce the amount of time that is required to back up application data, hence increasing the time available for online service" (Asselin et al., Page 2 Second Paragraph) and to "provide a safe and effective backup" (Taylor, Paragraph 0015).

In view of the above, the examiner contends that all limitations as recited in the claims have been addressed in this Action. For the above reasons, Examiner believed that rejection of the last Office action was proper.

  
JOHN BREENE  
SUPERVISORY PATENT EXAMINER

  
Dennis Myint  
Examiner  
AU-2162